



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Gardner et al.

Group Art Unit: 1645

Serial No. 10/677,734

Examiner: Not yet assigned

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Attorney Docket No. UTSD:1510-1

For: *NMR Detection of Foreign PAS Domain
Ligands*

DATE: January 9, 2004

PRELIMINARY AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Please enter the following preliminary amendments:

IN THE SPECIFICATION

At page 1, please replace the sentence after Field of the Invention with the following:

The field of this invention is foreign ligands of PAS protein regulatory domains.[[.]]

At page 2, please replace the first full paragraph with the following:

However, for most PAS domains there is no evidence for such a cofactor. In fact, structurally characterized PAS domains without bound cofactors (Amezcua et al., 2002; Erbel et al., 2003; Morais Cabral et al., 1998) show tightly packed cores with no pre-formed cavities that would suggest a cofactor or ligand binding site. In the case of one such PAS domain (PAS kinase) we previously reported screened chemical library compounds could induce chemical shift changes in residues that clustered in hydrophobic core regions analogous to the heme-binding site of FixL (McKnight et al., US Pat No. 6,319,679). Here we confirm that finding with additional compounds, and with alternative cofactor-free PAS domains.